9626/32/F/M/17/Q4

1 A website advertising a tourist resort uses both bitmap and vector graphics.

Evaluate the suitability of these types of graphics for use on the website.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/17/Q9

2 Dylan works for a graphics design company producing images in GIF, JPEG and PNG file formats. He has been asked to produce some high-quality still images for use in advertising on the World Wide Web. He has to choose one of the file formats to store the images.

Choose the most appropriate file format by comparing the features of the three different formats.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/17/Q3

3 An artist has sketched some of the shapes to use in a cartoon image of a snail.
The pre-drawn shapes are shown in Fig. 1.

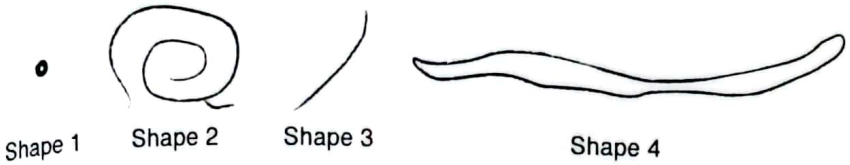

Fig. 1

The final image is then composed and completed using image-editing tools on a computer. It is shown in Fig. 2.

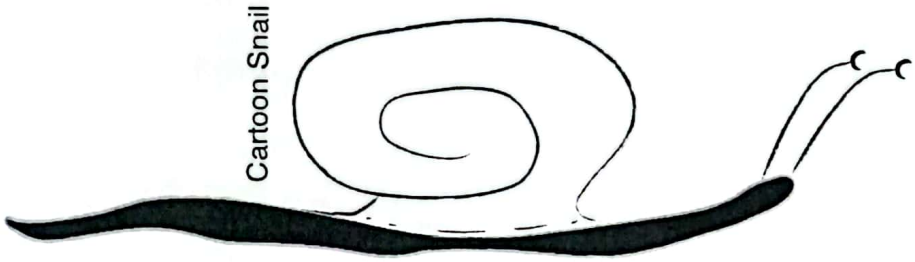

Fig. 2

Explain, in detail, how you would use image-editing tools to create the final image from the components.

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STUDENTS RESOURCE

CamScanner

9626/33/O/N/17/Q10

4 Computers can be used to edit images for advertising features in a printed magazine.

Describe the use of image editing techniques to alter images for use in advertising products.

[6]

9626/32/F/M/18/Q1

5 A website designer can use bitmap or vector images in web pages.

Explain the characteristics of bitmap images that make them suitable for use on web pages that advertise items for sale.

[4]

STUDENTS RESOURCE

CamScanner

9626/31/M/J/18/Q9

A graphics artist has drawn a shape on a 600 × 800 pixel resolution grid as shown in Fig. 3.

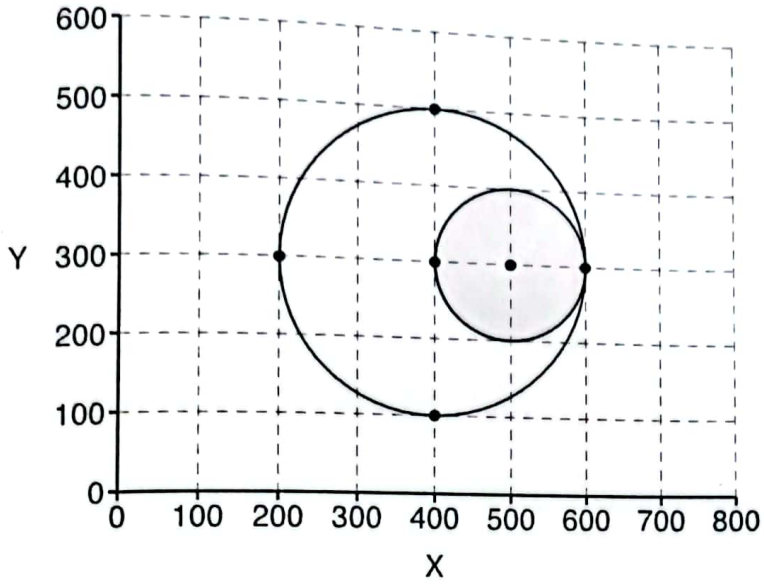

Fig. 3

The shape is to be stored in a computer file as a vector graphic so that it can be opened and displayed in different resolutions without loss of quality.

Describe the information about the shape that would be stored in the vector graphic file.

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STUDENTS RESOURCE

CamScanner

9626/33/M/J/18/Q6

7 **(a)** Describe how a bitmap ('raster') graphic is stored in a computer file.

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(b) Vector images are stored in computer files in a different format to how bitmap ('raster') images are stored.

Explain why vector images must be converted to bitmap ('raster') images for display on a digital monitor.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/18/Q2

Some text is being written for use as a title in a slideshow presentation. The text is to be zoomed in and out as the titles are displayed in different sizes on the slides.

The sample letter in Fig. 1 has been created as a bitmap graphic while the sample letter in Fig. 2 has been created as a vector graphic.

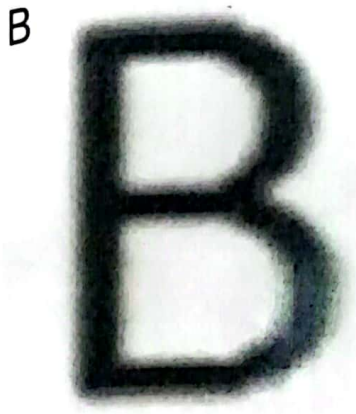

Fig. 1

Fig. 2

Explain, in detail, why letters created as in Fig. 2 are more suitable for use in the slideshow than those created as in Fig. 1.

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STUDENTS RESOURCE

CamScanner

9626/33/O/N/18/Q1

9 The photograph shown in Fig. 1 was taken and manipulated into the JPEG image shown in Fig. 2.

Fig. 1

Fig. 2

(a) Describe all the software features used to change the image in Fig. 1 to produce the image in Fig. 2.

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STUDENTS RESOURCE

CamScanner

(b) Explain why the features of the face in Fig. 2 are no longer easy to see.

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9626/32/F/M/19/Q4

Layers can be used when editing digital images.

(a) Describe what is meant by a 'layer' in computer graphics.

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(b) Describe how layers could be used to enhance a digital image.

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STUDENTS RESOURCE

CamScanner

(c) Discuss the impact on society of the use of image editing on photographs in fashion magazines.

[8]

STUDENTS RESOURCE

9626/31/M/J/19/Q1

11 Explain, with suitable examples, why computer graphics image editing software allows users to save bitmap images in different file formats.

[6]

9626/31/M/J/19/Q6

12 Discuss the impact of photo editing in politics.

[6]

STUDENTS RESOURCE

CamScanner

9626/32/M/J/19/Q8

13 The photograph in Fig. 8.1 has been edited and is shown in Fig. 8.2.

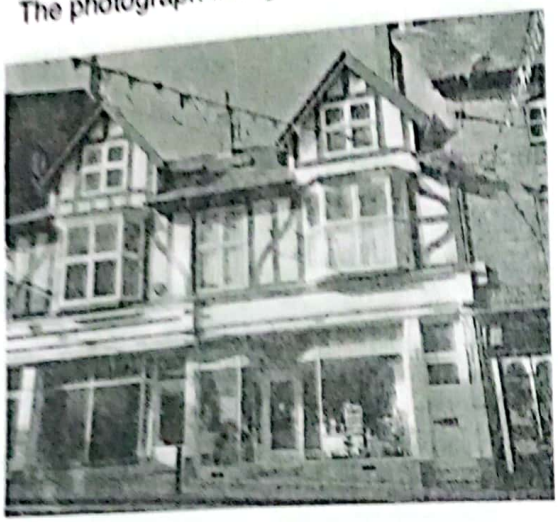

Fig. 8.1

Fig. 8.2

Describe in detail how image editing tools could have been used to change the photograph in Fig. 8.1 to that shown in Fig. 8.2.

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STUDENTS RESOURCE

9626/32/M/J/19/Q9

4 Colour gradients can be used when filling shapes in digital images.

(a) Describe **two** properties of the filled shape that can be changed with the use of colour gradients.

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(b) Describe the **types** of gradient that can be used when filling a shape with colour.

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STUDENTS RESOURCE

CamScanner

9626/31/O/N/19/Q10

15 A new photograph of a person in her office is required but the person is not available for the photo shoot.

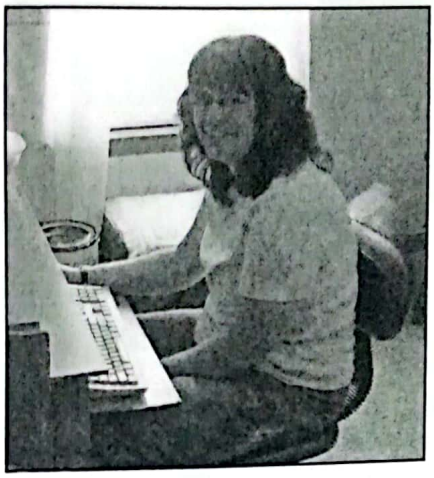

Fig. 10.1

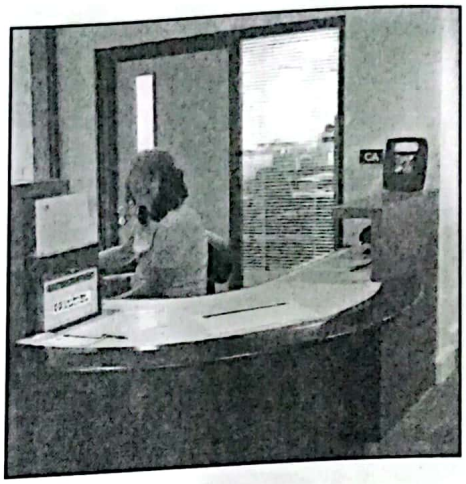

Fig. 10.2

Explain how the image of the person in Fig. 10.1 was extracted and placed in Fig. 10.2.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/19/Q1

Vector images use 'nodes'.

(a) Describe what is meant by a 'node' in a vector image.

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(b) Describe how node editing can be used to change a vector image.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/19/Q11

17 Fig. 11.1 shows a photograph of a scene. Fig. 11.2 shows the same scene after the photograph has been edited with image editing software.

Fig. 11.1

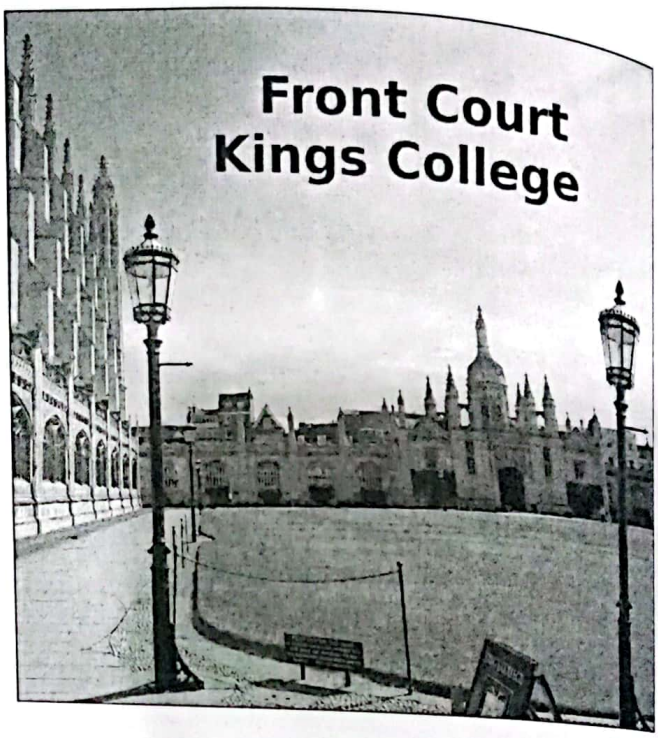

Fig. 11.2

Describe how image editing tools could have been used to change the photograph in Fig. 11.1 into that in Fig. 11.2.

[8]

STUDENTS RESOURCE

9626/32/F/M/20/Q5

Computer graphics software can create shapes as vector graphics or as bitmap images.

(a) Identify **one** use of vector graphics in computing.

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(b) Explain, in detail, why vector graphics can be resized without losing image quality but bitmap images usually cannot.

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STUDENTS RESOURCE

CamScanner

9626/32/F/M/20/Q10

19 Evaluate, by weighing up the advantages and disadvantages, the impact of image editing in the making of movies.

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9626/31/M/J/20/Q5

20 Describe how compression is used when storing bitmap image files.

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STUDENTS RESOURCE

CamScanner

9626/33/O/N/20/Q8

Bitmap images can be saved in different file formats. Images may be compressed when saving to a file.

Analyse the use of different file formats for storing compressed bitmap images.

[8]

STUDENTS RESOURCE

CamScanner

9626/32/M/J/21/Q12

22 A portrait painter has a website which he uses to display photographs of his work. The website uses thumbnail and large images to show the photographs.

Analyse the use of bitmap graphics for this purpose.

[6]

9626/31/O/N/21/Q11

23 Images of the faces of people can be manipulated and changed by morphing.

Describe how morphing could be used to change an image of a sad face into a smiling face.

[4]

STUDENTS RESOURCE

CamScanner

9626/32/O/N/21/Q9

Many web pages now use vector graphics as well as bitmap graphics for images and icons.

Evaluate, by weighing up the advantages and disadvantages, the suitability of vector graphics compared with bitmap graphics for this purpose.

[8]

STUDENTS RESOURCE

CamScanner

9626/32/F/M/22/Q3

25 A digital photograph has been taken by a photographer who stores versions of it as separate files using different image resolutions. The image will be used in advertisements that will appear in printed magazines, on posters, on TV and on web pages.

Analyse the need for different resolutions of the image.

[8]

STUDENTS RESOURCE

CamScanner

9626/32/F/M/22/Q9

RGB and CMYK are two systems that are used to produce colour in graphic design.

Compare, by describing similarities and differences, the use of the RGB and CMYK colour systems in graphic design.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/22/Q3

27 A designer creates vector graphics for companies for use in their advertising.

(a) Explain why the designer uses the svg file format for storing the vector graphics.

[4]

(b) Describe the information that must be stored in a vector graphic file so that the image can be recreated when the file is opened.

[4]

STUDENTS RESOURCE

CamScanner

9626/32/M/J/22/Q2

Digital images can be compressed.

(a) Explain why it is sometimes necessary to compress digital images.

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(b) Explain how lossy compression can affect computer images.

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STUDENTS RESOURCE

CamScanner